

c) REMARKS

The claims are 44-48 and 51-53 with claims 44 and 53 being independent. Support for the amended claim 44 is found on page 9, lines 25-27 and page 10, lines 6-14 (main chain and side chain). Support for new claim 53 is found at the same portions. The subject matter of claims 49 and 50 has been added to claim 44 and is present in new claim 53.

Claims 44-52 were provisionally rejected as an obviousness-type double patenting over claims 1-63 of Application No. 09/478,884. That objection is respectfully traversed.

Application No. 09/478,884 ('884 Application) has not issued and is refiled as an RCE. Claim 2 is under examination. Claims 1 and 4-63 were cancelled in the Amendment of August 9, 2004. Only claim 2, as amended, is pending.

Claim 2 of the '884 Application does not recite a polyimide with a sequence of two or more adjacent methylene groups in a repeating unit where the sequence is in a main chain (or a side chain). Claim 2 merely recites the presence of a polymer in the first portion. Applicants have distinguished a polymer with methylene groups from a polymer without methylene groups. The results of Comparative Example 1 compared to Examples 1 and 3 show that where a polymer compound has no methylene groups in the repeating unit (polyimide C) (page 28), then the resulting mesochannel was curved at the end portion (page 29, lines 24-27). Such a polyimide has lower orienting ability, thereby forming a structure with less regularity.

Accordingly, the present claims are distinct from claim 2 of the '884 Application.

Claims 44-52 were rejected as obvious over Ozin '666 in view of Katz '770. The Examiner admits Ozin does not disclose a polymer made up of the substrate having at least one imide bond in a repeating unit of the polymer. Katz is said to teach a porous silicate used in combination with a polyimide substrate as in Examples 5 and 6. Further, the Examiner specifically admits Ozin does not disclose a number of adjacent methylene groups in the repeating unit of the polymer, nor the location of the sequence of adjacent methylene groups within the polymer.

Accordingly, Applicants submit that the Examiner has failed to raise a prima facie case of obviousness, since none of the references disclose or suggest a polyimide having a sequence of two or more adjacent methylene groups in repeating unit, wherein the sequence is in the main chain or in the side chain of the polyimide.

As noted on specification page 10, lines 9-13 and page 13, lines 1-12, the presence of the specific methylene sequence helps stabilize the orientation of the polymer compound imparted by the rubbing. Accordingly, the orientation is not lost by the elevated reaction temperature in deposition of the silicate thin film.

In addition, the present specification teaches that when employing a polyimide (or polymer compound) having no methylene group versus one with a sequence of at least two adjacent methylene groups, then markedly different results are obtained. In Examples 1 and 3, polyimide A and B were employed, each having adjacent methylene groups in the repeating unit, either in the side chain or the main chain of the compound. In

contrast, in Comparative Example 1, a polyimide C was employed having no methylene groups in the repeating unit.

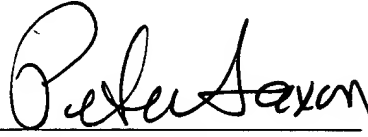
As disclosed on page 29, line 24 to page 30, line 1, the mesochannels of Comparative Example 1 were found to be curved at the end portions of the individual particles. Accordingly, the orientation of the silica prepared in Comparative Example 1 was deemed inferior as a whole compared to that prepared in Examples 1 and 3 in which the polyimide had methylene groups in repeating unit in either the main chain or side chain.

The comparisons in the instant application are closer than the cited references, since a polyimide with no methylene groups is compared to a polyimide with methylene groups. In particular, polyimide A is identical to that of polyimide C, except that in A, methylene groups are present, while in B, a benzene group is present instead of the methylene groups. There are no structures of the polyimide polymers in the cited prior art.

The case should be allowed and the case passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Peter Saxon", written over a horizontal line.

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